

Smallpox: Questions and Answers

Based on information developed by the Centers for Disease Control and Prevention, Atlanta, GA

What are the symptoms of smallpox?

Initial symptoms include high fever, fatigue, and head and backache. A rash, most prominent on the face, arms, and legs, follows in 2–3 days. The rash starts with flat red lesions that evolve at the same rate. Lesions become pus-filled and begin to crust early in the second week. Scabs develop and then separate and fall off after about 3–4 weeks.

Most patients with smallpox recover, but death occurs in up to 30% of cases.

How long does it take to show symptoms?

The incubation period is about 12 days (range: 7 to 17 days) following exposure.

If someone is exposed to smallpox, is it too late to get a vaccination?

If the vaccine is given within 4 days after exposure to smallpox, it can lessen the severity of illness or even prevent it.

How is smallpox spread?

In most cases, smallpox is spread from one person to another by infected saliva droplets during face-to-face contact with the ill person. People with smallpox are most infectious during the first week of illness, because that is when the largest amount of virus is present in saliva, but some risk of transmission lasts until all scabs have fallen off.

Contaminated clothing or bed linen could also spread the virus. All bedding and clothing of patients must be cleaned appropriately with bleach and hot water. Disinfectants such as bleach and quaternary ammonia can be used for cleaning contaminated surfaces.

Can I go to my doctor and request the smallpox vaccine?

In the United States, routine vaccination against smallpox ended in 1972. Since the vaccine is no longer recommended, it is not available. The CDC maintains an emergency supply of vaccine that can be released if necessary, since post-exposure vaccination is effective.

If people got the vaccination in the past when it was used routinely, will they be immune?

Not necessarily. The level of immunity, if any, among persons who were vaccinated before 1972 is uncertain; therefore, these persons are assumed to be susceptible. Most estimates suggest

immunity from the vaccination lasts 3 to 5 years. Immunity can be boosted effectively with a single revaccination. Prior infection grants lifelong immunity.

How safe is the smallpox vaccine?

Smallpox vaccine is considered safe. However, some people with conditions such as eczema or immune system disorders have a risk of complications. Smallpox vaccine should not be given to persons with a history of eczema or other skin conditions, pregnant women, persons with immunodeficiency diseases, or those with suppressed immune systems. Adverse reactions can range from mild rashes to rare fatal encephalitis

Is there any treatment for smallpox?

There is no proven treatment for smallpox, but research is ongoing. Patients with smallpox can benefit from intravenous fluids, medicine to control fever or pain, and antibiotics for any secondary bacterial infections that may occur.

What should people do if they suspect a patient has smallpox or suspect that smallpox has been released in their area?

Report suspected cases of smallpox or suspected intentional release of smallpox to your local health department. The local health department is responsible for notifying the state health department, the FBI, and local law enforcement. The state health department will notify the CDC.

How can we stop the spread of smallpox after someone comes down with it?

Vaccine and isolation are the strategies for stopping the spread of smallpox. Symptomatic patients with suspected or confirmed smallpox are capable of spreading the virus. Patients should be placed in medical isolation so that they will not continue to spread the virus. In addition, people who have come into close contact with smallpox patients should be vaccinated immediately and closely watched for symptoms of smallpox.

What should be done if there is a smallpox outbreak?

If an outbreak occurs, the first step would be to isolate those with the disease. All the contacts of the patients should be vaccinated as soon as possible. In the event that there are many cases in a city, vaccinations may be given to the entire population of that city.

Additional information about smallpox can be found at
<http://www.bt.cdc.gov/Agent/Smallpox/SmallpoxGen.asp>